

# POSITION DESCRIPTION (Please Read Instructions on the Back)

1. Agency Position No.

NS0050

2. Reason for Submission

☐ Redescription ☒ New  
☐ Reestablishment ☐ Other

Explanation (Show any positions replaced)

3. Service

☐ Hdqtrs ☒ Field

4. Employing Office Location

5. Duty Station

6. OPM Certification No.

7. Fair Labor Standards Act

☒ Exempt ☐ Nonexempt

10. Position Status

☒ Competitive  
☐ Excepted (Specify in Remarks)

☐ SES (Gen.) ☐ SES (CR)

8. Financial Statements Required

☐ Executive Personnel Financial Disclosure ☒ Employment and Financial Interest

11. Position Is

☐ Supervisory

☐ Managerial

☒ Neither

12. Sensitivity

☒ 1--Non-Sensitive

☐ 2--Noncritical Sensitive

☐ 3--Critical

☐ 4--Special Sensitive

9. Subject to IA Action

☒ Yes ☐ No

13. Competitive Level Code

14. Agency Use

15. Classified/Graded by	Official Title of Position	Pay Plan	Occupational Code	Grade	Initials	Date
a. Office of Personnel Management						
b. Department, Agency or Establishment						
c. Second Level Review	Mining Engineer (CME)	FC: 42 OC: AA GS	880	12	<i>R</i> TWT	1/11/04
d. First Level Review						
e. Recommended by Supervisor or Initiating Office						

16. Organizational Title of Position (if different from official title)

17. Name of Employee (if vacant, specify)

18. Department, Agency, or Establishment

Department of the Interior

a. First Subdivision

Bureau of Land Management

b. Second Subdivision

State Office

c. Third Subdivision

d. Fourth Subdivision

e. Fifth Subdivision

Signature of Employee (optional)

19. Employee Review-This is an accurate description of the major duties and responsibilities of my position.

20. Supervisory Certification. I certify that this is an accurate statement of the major duties and responsibilities of this position and its organizational relationships, and that the position is necessary to carry out Government functions for which I am responsible. This certification is made with the knowledge that

this information is to be used for statutory purposes relating to appointment and payment of public funds, and that false or misleading statements may constitute violations of such statutes or their implementing regulations.

a. Typed Name and Title of Immediate Supervisor

b. Typed Name and Title of Higher-Level Supervisor or Manager (optional)

Signature

Date

Signature

Date

21. Classification/Job Grading Certification. I certify that this position has been classified/graded as required by Title 5, U.S. Code, in conformance with standards published by the U.S. Office of Personnel Management or, if no published standards apply directly, consistently with the most applicable published standards.

Typed Name and Title of Official Taking Action

Todd W. Ryan

HR Specialist (Classification)

Signature

Date

22. Position Classification Standards Used in Classifying/Grading Position  
Job Family Standard for Professional Physical Science Work, GS-1300P, December 1997; Mining Engineering Series, GS-880, February 1967.

Information for Employees. The standards, and information on their application, are available in the personnel office. The classification of the position may be reviewed and corrected by the agency or the U.S. Office of Personnel Management. Information on classification/job grading appeals, and complaints on exemption from FLSA, is available from the personnel office or the U.S. Office of Personnel Management.

23. Position Review	Initials	Date	Initials	Date	Initials	Date	Initials	Date	Initials	Date
a. Employee (optional)										
b. Supervisor										
c. Classifier										

24. Remarks

FPL: GS-12: BUS: \_\_\_\_\_ The use of this position description requires prior approval by WO300.

25. Description of Major Duties and Responsibilities (See Attached)

NSN 7540-00-634-4265

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OF 8 (Rev. 1-85)  
U.S. Office of Personnel Management  
FPM Chapter 295

## INTRODUCTION

The incumbent serves in a dual capacity, (1) as a mining engineer, and (2) a Certified Mineral Examiner (CME). The position is typically located in a BLM line organization below state level. The incumbent provides technical expertise and recommendations to the line manager in the supervision and regulation of exploration, development, mining, production, and verification of leasable minerals on public lands and all minerals on public lands. This includes processing leasable mineral permits and lease applications, reviewing and evaluating exploration and lease development plans, monitoring of permit/lease operations, and the verification of production from Federal and Indian leases. The incumbent provides input on budget coordination and annual work plan preparation for mineral leasing and lease management programs.

As a condition of employment the incumbent of this position is required to file an annual confidential financial disclosure report.

## MAJOR DUTIES

### 1. Field Office – Mining Engineer (60%)

- a. Incumbent serves as a staff advisor to the line manager on actions regarding leasable minerals within the field office. Incumbent independently plans and conducts analytical and engineering evaluations to assure the orderly development and conservation of leasable minerals on all lands within the field office where the mineral estate is managed by the BLM.
- b. Independently reviews and evaluates proposed leasable and saleable mineral exploration and mining plans for technical adequacy to ensure the plans promote safe working conditions for the mine worker and provide for maximum recovery of the mineral resource, minimal degradation to the environment, and successful reclamation of the disturbed lands. Coordinates such reviews with local, State, and other Federal regulatory agencies as appropriate. May serve as team leader on interagency plan reviews. Through critical review of proposed operating plans filed by lessees and operators, the incumbent may make revisions to the plans or request revisions and modifications be made as necessary. Recommends to the Field Manager conditions for approval of the proposed lease/permit operations plans and prepares letters of approval on applicable plans for the Field Manager's signature, or writes approval memos through the Field Manager where a higher signature authority is required.
- c. Evaluates industry proposals and prepares Environmental Assessments, or Categorical Exclusion Reviews (CER) as directed by the National Environmental Policy Act (NEPA) to determine whether a proposed action will require an Environmental Impact Statement. May serve as team lead for EIS preparation. Coordinates or consults with the appropriate surface managing agencies, public, special interest groups, and other interested parties to determine the level of interest and the sensitivity of issues and concerns.
- d. Independently or as a part of interdisciplinary teams, makes technical examinations of proposed leasing or sales actions and provides recommendations of special conditions,

- terms, or requirements to be included in the lease or permit assignments and lease readjustments. Assures the orderly development and conservation of leasable or saleable minerals, and environmental protection through supervision of mineral lease and permit operations. Conducts regular field inspections of permit/lease operations to ensure industry compliance with applicable laws, regulations, lease/permit terms, and conditions to the approval of the operations plan. As is necessary, recommends corrective action for any operations not in compliance with the conditions of approval of the operations plan.
- e. Assures maximum economic recovery of the mineral resource through review of the approved operations plan and independently verifies production of the mineral resource from the lease or sale area by examination of mine production records shipping reports, mine development maps, and other available information as is necessary. Independently tracks on RMP decision changes, objectives, and any RMP proposed plan amendments related to the minerals program.
  - f. When requested conducts field examinations to confirm discoveries of valuable mineral deposits and makes evaluations to determine workability of leasable mineral deposits. Makes recommendations relative to minimal acceptable bonus bids, bonding requirements, and protection of the environment.
  - g. Determines appropriate procedures for safe abandonment of mine shafts, portals, and other potential hazards caused by mining and exploration operations and related facilities. Ensures compliance with applicable laws, regulations, order, lease or permit terms and conditions, and/or approval stipulations. As requested, assists in or independently prepares special purpose and/or technical information and reports, including administrative appeals, contests, and litigation on mineral related matters.
  - h. Organizes and maintains proprietary leasable mineral data files and records and organizes drill logs and other geophysical data. Is responsible for assuring confidentiality and security of proprietary geologic and economic data, lease record information, case files, and operating plans.
  - i. May act as intermediary between mining interests having leases and/or surface owners as to operations on or under the land, or to secure maximum recovery of mineral resources, or facilitate orderly development.
  - j. Counsels the general public and the mineral industry in response to inquiries on the solid mineral leasing programs, particularly regarding lease/permit operations on Federal lands and privately owned surface lands where the mineral estate is managed by the BLM. Coordinates with other government agencies concerning these programs and operations. May act as intermediary between lease operators and surface owners when conflicts arise. Independently plans for, develops, and prepares Mine Inspection and Enforcement Plans and Production Verification Plans for assigned leasable mineral operations within the field office.

**2. Certified Mineral Examination (40%)**

- a. Examines mining claims and mill sites and, by using commonly accepted geologic, engineering, and economic methodologies, and Departmental case law, arrives at a conclusion as to the presence or absence of a discovery of a valuable mineral deposit. Duties include mining claim patent and validity examinations, common variety determinations, mineral in character determinations and surface use determinations for residential occupancy cases under Manual Sections 3891 - Validity Examinations and 3893 - Mining Claim Occupancy Trespass (43 CFR 3712 and 3715).
- b. Gives expert testimony in an administrative hearing before an administrative law judge concerning the presence or absence of a discovery of a valuable mineral deposit under the General Mining Law of 1872, as amended; and as to proper occupation and use under the General Mining Law of 1872, as amended, Section 302 of FLPMA, and Sections 3, 4, and 5 of the Surface Resources Act of 1955. Assists the Solicitor in the presentation of the case at the hearing.

**FACTORS****Factor 1 - Knowledge Required By The Position****Mining Engineer**

Professional knowledge of and skill to apply the principles, concepts, and practices of mining engineering. A comprehensive knowledge of surface and subsurface mining methods and techniques, mining economics, surface mine design, geological hazards, exploration drilling and trenching procedures, and mineral resource occurrence is required to evaluate and ensure the feasibility of proposed lease operations plans and mineral material sale sites.

Knowledge of the Bureau's policies, missions or objectives, and multiple-use concept of resource management.

Knowledge of applicable Federal and State laws, regulations concerning leasing and development of solid leasable minerals and mineral materials, production accounting and royalty management, environmental protection and surface reclamation.

Command of technical writing skills to research and prepare a variety of reports, letters, lease development and mineral evaluations, and other complex technical documents.

Knowledge of the Bureau's NEPA process, interagency participation requirements, and documentation of the impact analysis procedures is needed for the review and preparation of environmental documents, and to develop plans for monitoring the implementation of measures required to ensure protection of the environment.

Knowledge of engineering, geologic, and hydrologic hazards assessment is needed to ensure that precautionary measures are implemented during mining to minimize unnecessary loss of mineral resources and degradation to the environment and to promote the safety, health, and welfare of

the mine workers. This knowledge is also needed to properly evaluate mine plan designs as to pit high wall and waste dump stabilization.

Knowledge of potential hydrologic and geochemical impacts from exploration, mining, and milling processes is needed to evaluate effluent discharge, mine drainage proposals, tailing pond designs, and toxic waste management.

Knowledge and sufficient skill to develop solid mineral Mine Inspection and Enforcement Plans, plans to monitor production of the mineral resource from Federal and Indian leases, and plans to monitor the implementation of measures required to protect the environment.

Knowledge of mining engineering principles and practices is needed to provide expert advice to approving officials relative to the review of proposed leasable mineral operations, and a variety of other leasable mineral related activities including the review of geologic reports and applications submitted by the permittees or lessees.

An understanding and knowledge of how to apply best management practices to mining operations to reduce or mitigate undesirable impacts of mining to acceptable levels. This should include a knowledge of reclamation methods and techniques applicable to surface mines that can be used to achieve productive post-mine land uses.

#### Certified Mineral Examiner

Incumbent must be a BLM Certified Mineral Examiner. National certification is required to show the necessary knowledge, experience, skills, and training have been attained in order to conduct complex validity and other technical mineral reports.

Extensive professional knowledge of state and Federal mineral laws, case law, regulations, and policies and the ability to interpret and apply them to unique and complex locatable minerals cases.

#### Factor 2 - Supervisory Controls

All work is performed under the supervision of a line manager who provides direction on responsibility and guidance on critical issues and policy matters. The supervisor defines overall objectives.

Incumbent after deciding on approach and methodology, independently determines the procedures necessary to plan, schedule, and complete work assignments.

Work is reviewed for accomplishment of objectives and policy compliance. Results of the work are considered as technically correct and are normally accepted without significant change.

#### Factor 3 - Guidelines

Guidelines include laws, regulations, BLM Manual and Minerals Handbook, Departmental Manual, Memoranda of Understanding, cooperative agreements, and precedent-setting good

mining practices. Frequently, precedents in interpretation of guidelines are not available and incumbent must use judgment based on experience and his/her resourcefulness to develop solutions to problems. The incumbent's interpretation can result in litigation and subsequent appeal to the Interior Board of Land Appeals, therefore, the incumbent must exercise rational judgment on frequently sensitive issues.

#### Factor 4 - Complexity

Assignments typically contain many complex tasks that must be conducted simultaneously. Independently, incumbent must judiciously analyze proposed multi-million dollar mining operations and provide to the supervisor recommendations consistent with the policies of the BLM.

Solid Mineral Lease and Permit operations under the incumbent's supervision are complex and varied and include exploration drilling programs, several large open-pit mining operations, ore production and grade verification processes, ore transportation systems, complex designed waste disposal areas, and flotation plant effluent and tailings pond management. The purpose of the supervision of the above operations is to promote orderly and efficient exploration, mining and processing operations, ensure ultimate maximum recovery of the mineral resource, to promote the safety of the workmen, to minimize damage to the environment, and ensure compliance with established requirements.

Certified mineral examination work consist of analyzing and synthesizing information from several highly specialized areas, including geology, mining engineering, and mineral case law, to resolve unconventional and complex problems of mining claim validity, mining law administration, and surface management of mining operations on Federal lands. The assignments typically involve novel or unique cases for which there are no legal or regulatory precedents or which require the development of new geologic methods. Often there are several approaches that can be taken, the methods and procedures are not established, and the interpretation of data is inconclusive. Modification of established approaches and development of new methods, techniques, or precedents is frequently required to plan and carry out assignments.

#### Factor 5 - Scope and Effect

Incumbent's work involves all phases of the mineral lease/permit operations within the Field Office and includes the investigation and evaluation of a variety of engineering/mineral related problems. Incumbent provides recommended solutions of the problems to the supervisor. The performance of this work may have a long-term effect and directly impact the expenditure of millions of dollars invested in the mineral leasing operations within the area.

Work related to mineral examination involves development and implementation of methods, policies, and procedures to administer the development and conservation of Federal locatable and salable minerals. The work significantly effects the policies, management decisions, methods, and procedures of BLM, state and local government agencies, and the private minerals industry.

Factor 6 - Personal Contacts

Primary personal contacts outside the Field Office include State Office personnel, and representatives from the U.S. Forest Service, USGS, Mineral Management Service, Mine Safety and Health Administration, Environmental Protection Agency, Army Corps of Engineers, private industry management, mining associations officials, state regulatory agencies, academic community, county commissioners, city management officials, U.S. Fish & Wildlife Service, and the general public

Factor 7 - Purpose of Contacts

The primary purpose of most contacts with industry management is to effect regulatory controls over their operations. Such contacts must be handled in a professional manner and forceful enough to ensure that the public interests are protected. In addition, supervision of the lease operations require frequent interagency coordinated inspections of the lease operations.

The primary purpose of contacts with other Surface Management Agencies or regulatory agencies is to coordinate responsibilities to provide for adequate environmental protection and post mine land use, minimize or eliminate duplicity and ensure operations are in compliance with applicable laws, regulations, and procedures.

Factor 8 - Physical Demands

Although most of the work is in the office, frequent field inspections necessitate hiking or walking in mountainous terrain at all times of the year. Incumbent is required to travel in difficult terrain and extreme climatic conditions by foot, 4-wheel drive vehicles, snow machine or on horseback. Also the incumbent may be required to occasionally ride in fixed-wing aircraft or helicopters.

Under emergency situations, incumbent must be prepared to investigate a mine site regardless of weather, time of day, or terrain.

Factor 9 - Work Environment

Work environment ranges from the office setting to remote field locations. The incumbent will perform his/her duties in all types of terrain and in temperatures ranging from -40 degrees F. to over 100 degrees F. Incumbent may occasionally occupy field station quarters with a minimum of comforts for a period of up to one week. The use of protective safety equipment (i.e. hard hats, steel toed shoes, and safety glasses) is mandatory during mine inspections. Incumbent will adhere to all safety rules and regulations as prescribed in manuals/supplements or by the designated Safety Officer.

**EVALUATION STATEMENT****Recommended Classification**

Geologist (CME), GS-1350-12  
Mining Engineer (CME), GS-880-12

**Organizational Location:**

Bureau of Land Management, Line Organization below  
State Office Level

**References:**

Job Family Standard for Professional Physical Science  
Work, GS-1300P, December 1997; Mining Engineering  
Series, GS-880, February 1967

**Background:**

This position is located in an organizational element below state level with (1) responsibility as a BLM Certified Mineral Examiner, (2) responsibility as the program leader responsible for planning, initiating, directing, and executing the minerals program at the Field Office level .

The BLM is responsible for administering the General Mining Law of 1872, which opened public lands to the exploration, and extraction of valuable minerals. Processing a mineral patent application is quite complex. The application is filed with BLM. BLM reviews the application to ensure that the applicant has complied with all the paperwork requirements of the Mining Law. If BLM concludes that the paperwork is complete, the BLM State Director forwards the application, together with evidence of posting, publication, payment of the purchase price, and the First Half-Mineral Entry Final Certificate (FHFC), to the Regional Solicitor's Office which provides legal services for BLM activities in that state. The Regional Solicitor conducts a legal review of the package, and then forwards it to the Solicitor for his concurrence in the issuance of the FHFC. The Solicitor then forwards the package to the BLM Director for concurrence in issuance of the FHFC; he/she, in turn, passes it to the Assistant Secretary of Land and Minerals Management (DOI) for further review and concurrence. With the concurrence of these officials, the Secretary signs the FHFC.

After the Secretary signs the FHFC, the patent application is returned to BLM for verification that the applicant has made a valuable mineral discovery, or, in the case of a millsite, that the applicant is using and occupying five acres or less of non-mineral land for mining or milling purposes. At this point a BLM CME completes a mineral examination of the claim or site and prepares a mineral report. The CME may ask for additional documentation from the applicant if the initial proof of discovery does not provide enough data to make a determination. If the mineral report verifies the discovery "of a valuable mineral deposit" (or, in the case of a millsite, that the land is non-mineral), and BLM believes that all other statutory requirements have been met, BLM recommends that the Secretary sign the Second Half-Mineral Final Certificate (SHFC) and issue the mineral patent. The processing of the SHFC follows a path similar to the FHFC. Approval of the SHFC constitutes award of the patent and legal title to the land is transferred to the applicant as of the date the Secretary signs the patent.



Until 1993, authority rested with BLM State Directors and District Managers to issue FHFCs, SHFCs and patents. That authority was temporarily revoked on March 3, 1993, and on December 16, 1996, the DOI Secretary permanently reserved his/her authority for signing both final certificate documents and for issuing patents.

Effective October 1, 1994, a Congressional moratorium was placed on the processing of mineral patent applications. The moratorium included in the Interior and Related Agencies Appropriations Act of 1994, contained two important provisions. Section 112 prohibited the obligation or expenditure of funds for the acceptance or processing of applications for patents for any mining claims or millsites under the Mining Law or the issuance of new patents for any mining claims or millsites. Section 113 is the “grandfather provision” that permits DOI to process those patent applications (1) filed on or before the date of enactment of the Act and (2) in full compliance with the statutory requirements under 30 U.S.C 29 and 309 for vein or lode claims. The moratorium has been extended each year through the end of FY 2002. At this writing, it is unknown whether the moratorium will be extended another year through FY2003.

At the time of the Congressional moratorium in 1994, it was determined that 386 applications were “grand fathered” and 240 other pending applications were determined to fall within the moratorium. As of 2003, there are still 136 applications pending and 185 non-grandfathered applications that are not being processed.

In the simplest terms, mineral patents involves two significant steps: (1) reviewing the patent application to ensure that it is complete and in compliance with administrative requirements of the Mining Law and (2) performing a mineral validity examination to ensure that the geologic and economic evidence shows that the claimant has discovered a valuable mineral deposit. CMEs are responsible for conducting the most complex and controversial portion of this process, the mineral validity examination.

A mineral validity examination is the examination and evaluation of a mining claim(s) to determine if the mineral deposit claimed is commercially viable (valuable deposit under the General Mining Law). The process involves mapping the geology, sampling the deposit with regard to its geologic controls to confirm reserve estimates, determining the cost of mining the deposit, and determining the price to be received for the commodity produced. If the expected unit price to be received is greater than the estimated unit cost of production, the requirements for discovery under the General Mining Law have been satisfied. The essential test is that of the Prudent Man Rule - is there a reasonable prospect of success in developing a valuable mine?

Representatives from the Mineral, Realty, and Resource Protection Directorate (WO300) have stated that there is sufficient work to support 60-70 CMEs and 16-20 CRMEs. These numbers can fluctuate based upon workload, need and changes in law. The establishment of new CME positions requires prior approval of WO320. Certification as a CME is required prior to placement in the SPD. The SPDs require that the incumbent expend 40% of his/her worktime on CME or CRME related tasks.

Determination of Series and Title:

Dependent upon the duties and knowledge requirements the position will either be placed in the Geology Series, GS-1350, or Mining Engineering Series, GS-880. This position is designed for placement in the Mining Engineering Series, GS-880.

Positions allocated to the Mining Engineering Series, GS-880 require primarily the application of professional knowledge of mining engineering. The work requires the ability to apply the principles of mathematics, chemistry, geology, physics, and engineering to mining technology. Also required is a knowledge of construction and excavation methods, materials handling, and the processes involved in preparing mined materials for use. Mining engineer positions are concerned with the search for, efficient removal, and transportation of ore to the point of use; conservation and development of mineral lands, materials, and deposits; and the health and safety of mine workers. The function of mining engineering is the removal of raw materials in the form of metals, minerals, and solid fuels from the earth. Mining engineers may be engaged in administering laws regulating mining and the leasing of public lands containing mineral deposits. The above is a match for the position. The approved title for positions allocated to this series is Mining Engineer. The parenthetical '(CME)' is assigned based on the specialized duties in the position description.

Determination of Grade:

It is determined that the mining engineering duties of the position are not grade controlling or enhancing to the GS-12 level. Rather it is the duties and responsibilities related to the certified mineral examination work that support the higher grade. As such the CME work will be evaluated.

The GS-1300P Job Family Standard (JFS) for Professional Physical Science Work is the most appropriate standard to use in determining the grade of this position. The GS-1300P includes appropriate language from the law and grade level criteria (standard) and is further supplemented by illustrations of work appropriate for each grade level.

Evaluation:

The GS-12 grade level in the standard describes assignments that typically involve planning, executing, and reporting on original studies or ongoing studies requiring a fresh approach to resolve new problems. Assignments require the development of totally new methods and techniques to address problems for which guidelines or precedents are not substantially applicable. Assignments typically include considerable breadth, diversity, and intensity; varied complex features; and novel or obscure problems.

Work related to being a Certified Minerals Examiner is best described by the GS-12 level. Like the GS-12 grade level the incumbent must address a variety of issues in conducting a mineral validity review. Guidelines or precedents are not substantially applicable as each review is tailored to a specific site and determination if a site can be mined at a profit can be subjective in nature. Beyond determining the quantity and quality of the mineral present, and to be profitable, totally new methods of mineral extraction, funding options, and business models, may have to be

created by the developer. An example given by the Washington Office subject matter experts during the development of this position description was determining the value of limestone and the quantity contained in a site.

Some aspects of the GS-13 level are present (i.e., the incumbent deals with highly controversial issues and may be called upon to defend their findings and recommendations in high level or public forums). However, the position does not fully meet the threshold for the GS-13 grade level because (1) the impact of the work is not typical of that level and (2) while the work is considered to be that of a technical authority, the incumbent does not function at the technical expert level described in the standard. The difference between authority and expert is related to the type of work being performed and the interaction with other authorities in the career field. In this case, the type of work being performed is best described at the GS-12 level.

Certified Review Mineral Examiners (CRME) review the work of Certified Minerals Examiners. Multiple CMEs are present in every state, but each state typically has only one CRME. CRMEs accept the work of CMEs as technically sound, and review the work for general acceptability and feasibility in relation to the overall program.

**Conclusion:** It is determined the appropriate grade for this position is GS-12.

**Classification:** Since the primary duties and knowledge requirements in this position are related to mining engineering, this position is classified as Mining Engineer (CME), GS-880-12. In situations where the primary duties and knowledge requirements are related to geology, position description number NS0051, Geologist (CME), GS-1350-12, should be utilized.

The position is EXEMPT - It meets the criteria of Professional as outlined in the standards on FLSA.

A handwritten signature in black ink, appearing to read 'Todd W. Ryan', enclosed within a large, loopy oval shape.

Todd W. Ryan  
HR Specialist (Classification)